

### **ABSTRACT OF THE DISCLOSURE**

An apparatus and method for detecting an operation value using a look-up table at high speed, which not only minimizes the size of the look-up table but also satisfies a desired error rate. The apparatus includes a means for

- 5      storing seed values corresponding to seed points determined according to the range of the input data and output data and an error rate, an address and data generator for comparing a predetermined reference value with the input data to generate an address of the storing means and revised input data corresponding to the input data, and an operator for performing a predetermined operation
- 10     using the seed values output from the storing means and the revised input data generated by the address and data generator to output an operation value corresponding to the input data. Accordingly, an operation value having a minimum error rate can be provided with a small sized memory.